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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,062	07/05/2001	Hideaki Kawamura	0717-0471P	1339

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EXAMINER

CERULLO, JEREMY S

ART UNIT PAPER NUMBER

2112

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/898,062	<b>Applicant(s)</b> KAWAMURA, HIDEAKI	
	<b>Examiner</b> Jeremy S. Cerullo	<b>Art Unit</b> 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2001.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-12 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7-5-2001 2-28-2005</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-12 are pending in this action.

#### ***Claim Objections***

2. Claims 2 and 7-8 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In Claim 2, it is stated that the first bus use permission request signal is not suspended following a certain condition, whereas in Claim 1 it is stated that the first bus permission use request signal is suspended for at least one clock cycle.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-5, 7, 9, and, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,930,488 ("Mitsuishi") in view of U.S. Patent No. 5,517,325 ("Shimatani").

5. As for Claim 1, Mitsuishi teaches a data processing system with at least one function module connected to a system bus, a data transfer controller (DTC) which outputs a bus use permission request signal, a central processing unit (CPU) connected to the system bus that outputs a second bus use permission signal, and an arbitration unit that determines which of the DTC and CPU obtains permission to use the system bus, giving priority to the DTC over the CPU. Please see Figures 4 and 12 and Column 15, Line 46 through Column 16, Line 32 of the Mitsuishi. Mitsuishi does not teach a section for setting a first data amount that can be continuously transferred. And while Mitsuishi teaches that the DTC is not enabled after a transfer Mitsuishi does teach how long this lasts. However, Shimatani teaches a means for designating a number of data to be continuously transferred using an image DTC, as well as a release period when control of a bus is suspended for at least one clock cycle. See Column 3, Line 65 through Column 4, Line 6 of the reference. It would have been obvious to one of ordinary skill in the art at the time of the invention to designating and suspending means of Shimatani in the system of Mitsuishi as a mechanism for specifying the amount of data to be transferred and to prevent contention of the system bus.

6. As for Claim 2, Mitsuishi teaches that the at least one function module is a plurality of function modules. Please see Figures 4 and 12 and Column 15, Line 46 through Column 16, Line 32 of the Mitsuishi. As noted in the above claim objection, the

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limitations of Claim 2 conflict with the limitations of its parent claim, Claim 1. For purposes of applying art, the examiner interprets the invention as having the limitations of the parent claim, and as such Shimatani teaches the suspension of the request for the bus.

7. As for Claim 3, the examiner takes OFFICIAL NOTICE that it is common in the arbitration arts that when a device is prevented from requesting permission to use a bus, another device that request permission to use said bus is given permission.

8. As for Claim 4, Shimatani teaches a means for designating a number of data to be continuously transferred. Although it is used in this instance for a DTC, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used this for any device transferring data on the bus. Furthermore, Mitsuishi teaches that the DTC is not given access to the bus until the CPU has finished its transmission. See Mitsuishi: Column 17, Lines 28-32.

9. As for Claim 5, the system of Mitsuishi is within a semiconductor integrated circuit. See Abstract.

10. As for Claim 7, the system of Mitsuishi is within a semiconductor integrated circuit. See Abstract.

11. As for Claim 9, the system of Mitsuishi is within a semiconductor integrated circuit. See Abstract.

12. As for Claim 11, the system of Mitsuishi is within a semiconductor integrated circuit. See Abstract.

13. Claims 6, 8, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuishi and Shimatani as applied to claims 1-5, 7, 9, and 11 above, and further in view of U.S. Patent Application Publication No. 2003/0142219 ("McGarvey" et al.).

14. As for Claim 6, Mitsuishi and Shimatani teach all of the limitations inherited from Claims 5 and 1, and Shimatani even teaches a image data transfer controller, but they do not specifically teach that their system is within a digital camera. However, McGarvey does teach the use of a controller with processor in a digital camera. See Figure 1 and Paragraphs [0015]-[0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the semiconductor device with image data transfer controller taught by Mitsuishi and Shimatani in the digital camera as taught by McGarvey, in order to control the transfer of images throughout the digital camera.

15. As for Claim 8, Mitsuishi and Shimatani teach all of the limitations inherited from Claims 7 and 2, and Shimatani even teaches a image data transfer controller, but they do not specifically teach that their system is within a digital camera. However, McGarvey does teach the use of a controller with processor in a digital camera. See Figure 1 and Paragraphs [0015]-[0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the semiconductor device with image data transfer controller taught by Mitsuishi and Shimatani in the digital camera as taught by McGarvey, in order to control the transfer of images throughout the digital camera.

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16. As for Claim 10, Mitsuishi and Shimatani teach all of the limitations inherited from Claims 9 and 3, and Shimatani even teaches a image data transfer controller, but they do not specifically teach that their system is within a digital camera. However, McGarvey does teach the use of a controller with processor in a digital camera. See Figure 1 and Paragraphs [0015]-[0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the semiconductor device with image data transfer controller taught by Mitsuishi and Shimatani in the digital camera as taught by McGarvey, in order to control the transfer of images throughout the digital camera.

17. As for Claim 12, Mitsuishi and Shimatani teach all of the limitations inherited from Claims 11 and 4, and Shimatani even teaches a image data transfer controller, but they do not specifically teach that their system is within a digital camera. However, McGarvey does teach the use of a controller with processor in a digital camera. See Figure 1 and Paragraphs [0015]-[0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the semiconductor device with image data transfer controller taught by Mitsuishi and Shimatani in the digital camera as taught by McGarvey, in order to control the transfer of images throughout the digital camera.

**Conclusion**


18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,320,573.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy S. Cerullo whose telephone number is (571) 272-3634. The examiner can normally be reached on Monday - Thursday, 7:00-4:30; Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JSC

  
PAUL R. MYERS  
PRIMARY EXAMINER